

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) Method for managing a battery system including a number of serially coupled batteries **c h a r a c t e r i z e d** by the steps of
detecting the battery voltage over the batteries of the
battery system; and
utilizing a voltage imbalance between different batteries of the system during operation of the battery system.
2. (original) Method according to claim 1, further comprising the step of
controlling the voltage distribution of the batteries to create a voltage imbalance between different batteries of the battery system.
3. (original) Method according to claim 1, wherein the step of controlling the voltage distribution comprises the step of
controlling the voltage distribution of the batteries to enhance a detected voltage imbalance between the different batteries of the system.
4. (currently amended) Method according to ~~any one of preceding claims~~ claim 1,
further comprising the step of

alternating between batteries of the battery system having different voltages during predetermined intervals.

5. (currently amended) Method according to ~~any one of the preceding claims~~ claim 1, wherein the step of utilizing the voltage imbalance comprises the step of utilizing the voltage imbalance between different batteries of the system during the charging and/or discharging of the batteries.
6. (original) Method according to claim 1, further comprising the step of sensing a battery parameter of the battery system; and utilizing the sensed battery parameter for the control of the voltage distribution
7. (original) Method according to claim 4, wherein the step of sensing a battery parameter comprises the step of sensing the temperature at the battery system.
8. (original) Device for managing a battery system including a number of serially coupled batteries **c h a r a c t e r i z e d** by voltage detecting means connected to said battery system and arranged to detect the battery voltage over the batteries of the battery system; DC-to-DC-converting means connected to said battery system; and

a controller connected to said voltage sensing means and to said DC-to-DC-converting means and being arranged to control the voltage distribution over the batteries of the battery system via said DC-to-DC-converting means.

9. (original) Device according to claim 8, further comprising means for sensing a battery parameter of said battery system connected to said controller and wherein said controller is arranged to utilize said parameter at said control of the voltage distribution.
10. (original) Device according to claim 9, wherein said means for sensing a battery parameter is a temperature sensor for sensing a temperature at said battery system.
11. (currently amended) Device according to ~~any one of the preceding claims~~ claim 1, further comprising a timer unit connected to said controller
12. (currently amended) Computer readable medium comprising instructions for bringing a computer to perform a method according to ~~any one of the claims 1-7~~ claim 1.